

1     What is claimed is:

2     1.     A method for remotely monitoring the operating performance parameters for a water  
3     treatment system, comprising the steps of:

4     a)providing at least one sensor assembly effective for monitoring critical water parameters and  
5     transmitting raw operating data via a communications interface;

6     b) coupling at least one said sensor to an Internet server computer via said communications  
7     interface;

8     c) transmitting said raw data using to a remotely located Internet server computer;

9     d) storing said transmitted raw data on said Internet server computer;

10    e) accessing such data asynchronously from said Internet server computer;

11    f) manipulating said transmitted and stored raw data into an analysis result and a report result; and

12    g) uploading said analysis result and said report result to an Internet web server in a format suitable  
13    for access and visualization with a web browser computer program.

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15    2.     The method of claim 1, further including a step of filing said report result with an  
16    appropriate regulatory agency.

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18    3.     The method of claim 1, further including a step of transmitting said report result directly to  
19    an appropriate regulatory agency using electronic transmission means.

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21    4.     The method of claim 3, wherein said electronic transmission means is via e-mail.

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5. The method of claim 3, wherein said electronic transmission means is via ftp (file transfer protocol).

6. The method of claim 3, wherein said electronic transmission means is via direct connection over the Internet to a database located on a remote computer.

7. The method of claim 1, wherein said step of manipulating said transmitted and stored raw data includes routines to notify selected individuals on the basis of the stored parameters relating to the performance of the system being analyzed.

8. The method of claim 1, wherein said step of manipulating said raw data includes routines to notify selected individuals on the basis of said selected parameters relating to compliance testing dates and performance criteria.

9. The method of claim 1, wherein said step of accessing said raw operating data from said at least one sensor includes the steps of reading, querying, and storing data accessed from said electronic system by use of said communications card interface.

10. The method of claim 1, wherein said communications interface is integral to said sensor assembly.

1 11. The method of claim 1, wherein said at least one sensor assembly is operable to transmit  
2 raw operating data in real time.

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4 12. The method of claim 1, wherein said water treatment system produces potable water.

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6 13. The method of claim 1, wherein said water treatment system includes secondary and/or  
7 tertiary treatment.

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9 14. The method of claim 1, wherein said sensor assemblies communicate with an electronic  
10 control system.

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12 15. The method of claim 14, wherein said step of transmitting said raw data to said Internet  
13 Server Computer is integrated into said electronic control system.

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15 16. The method of claim 14, wherein said electronic control system is defined as a  
16 programmable logic controller (PLC).

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18 17. The method of claim 1, wherein at least one sensor assembly is in communication with a  
19 local computer and said Internet computer in a parallel arrangement effective for simultaneous  
20 transmission of said raw operating data, and said local computer includes a software program  
21 operable to perform the steps of reading, querying, and storing data accessed from said at least

1 one sensor.

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3 18. The method of claim 1, further including the steps of:

4 h) comparing said analysis result with known optimum performance parameters;

5 i) determining differentials between said known optimum performance parameters and the analysis  
6 result; and

7 j) sending notifications to pre-determined recipients if known limits for said differentials are  
8 exceeded.

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10 19. The method of claim 1, further including the steps of:

11 h) comparing said analysis result with known Federal and State EPA parameters;

12 i) determining differentials between said known Federal and State EPA parameters and the  
13 analysis result; and

14 j) sending notifications to pre-determined recipients if known limits for differentials are exceeded.

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16 20. The method of claim 1, further including the steps of:

17 h) comparing said report result with know Federal and State EPA parameters;

18 i) determining the differential between said known Federal and State parameters and the report  
19 result; and

20 j) sending notifications to pre-determined recipients if known limits for said differentials are  
21 exceeded.

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2     21.     The method of claim 1, further including the steps of converting said transmitted and stored  
3     raw operating data into visual graphs.

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5     22.     The method of claim 1, further including the steps of converting said transmitted and stored  
6     raw operating data into statistical reports.

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8     23.     The method of claim 1, further including the steps of converting said transmitted and stored  
9     raw operating data into a compliance calendar.

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